

# New San Diego Central Library Innovative Technology

## **Cutting edge infrastructure**

- GPON (Gigabit Passive Optical Network) -- Fiber optic architecture that allows for high bandwidth transmission and supports next-generation services.
  - Separate high speed broadband networks for public and staff use.
  - Voice Over IP (Internet Protocol) Transmits voice over a single broadband connection and reduces communication and infrastructure costs.
- Free WiFi throughout the Library and in the Garden Courtyard and Auditorium.
- RFID materials tagging allows for more mechanized materials handling.
  - The San Diego Padres Home Plate Book Return at the lobby's circulation desk uses an automated conveyor system to transport returned materials to a back office area and sort them for quick return to the collection.
  - RFID processing reduces staff time required to ready materials for reshelving and faster check out.

## Visually rich technological and artistic experiences

• A video wall in the new Central Library lobby near the circulation desk with multiple video screens, placed in a layout pattern at multiple angles and rotations, including 3D.

Uses Sony's latest technology.

 Creates a multi-sensory experience to grab visitor attention and let them know they are entering a technological library of the future.

 Features quintessential San Diego images with fast moving time-lapse shots of iconic San Diego locations and interactions.

- Weaves in the theme of literacy and the Library's new tagline,
   "Discover Your Next Chapter."
- A fourth floor art installation on the wall with monitors arrayed like an open book.
  - Monitors will present a digital artistic interpretation of literacy and reading.

#### Technology-based digital signage and donor recognition

- Six 42" digital displays throughout the Library.
  - Featured Events.
  - RSS Feed to Library calendar.
  - Videos.
  - Ticker Tape with Interesting Facts.
  - Time and Temperature.
- Wayfinding electronic totems on 1<sup>st</sup>, 2<sup>nd</sup> and 9<sup>th</sup> floors (*back-to-back 32*" *monitors*).
  - Hotel style room location wayfinding.
  - Floor-by-floor events for the day's offerings.
- QR code activated video highlights.
  - QR codes placed in prominent Library locations will activate informational video on customers' tablets and other mobile devices.
  - Description of area's features and recognition of donor support.
- Major donor recognition in lobby.
  - Interactive projection of new Central Library supporter names on lobby main pillar.



#### **Apps**

- Boopsie App that gives patrons one-click access to the catalog, account information, e-book and audio book titles, databases, branch locations, calendar of events, reading lists, photo archives and more.
  - Works on both Android and iOS platforms and is available in several languages.
  - Future option that allows patrons to check out materials in the library using their own devices.
- Google Indoor Maps. GPS-based indoor floor plans.
  - Visitors can access Central Library's floor plan and switch between floors to see highlights.
  - "Blue dot" icon shows customer their location on the floor plan.
  - Seamlessly integrated into Google Maps for desktop and Android devices and automatically enabled when the user zooms in, and fade away when the map is zoomed out.





## Opportunities to learn, use and interact with the latest technology

- Hundreds of digital devices available including workstations, Kindle and Sony eReaders (*preloaded with the most popular titles*), Chromebooks, iPads, iPad Minis, and other mobile devices.
- Technology enabled collaborative work spaces.
  - Six study rooms (*4 person and larger*) equipped with state-of-the-art computer ready televisions
- Fourth-floor Computer Lab and Training Center with classrooms to teach technology and a variety of subjects.
- Media and gaming area in Teen Space and multimedia collaborative table that allows teens to work together on multimedia projects and attend movie screenings and gaming nights.



- CityTV Media Studio and YES! (Youth Empowerment for Success)
   Learning Lab
  - Onsite television production studio, including green screen, video editing and music recording equipment, webcasting, and web publishing.
  - Facility will act as learning lab for students on multimedia production.
- Using *CONTENTdm*, a digital collection management software, high resolution graphics will be digitized and available for close up viewing on pedestal mounted tablets.
  - Valuable and fragile items from the Wangenheim Collection will be available for detailed viewing on tablets in the Hervey Family Fund Rare Books Room.
  - Featured items from Government collection will be available for viewing on tablets in the Government documents area on the 3<sup>rd</sup> floor.
  - Access to Dr. Seuss books will be available on tablets in the Seuss-themed Sanford Children's Library.
- Early Literacy Stations (AWE) in the Sanford Children's Library.
  - Dynamic and engaging digital learning solution for children ages 2-8.
  - Features more than 60 educational software titles spanning seven curricular areas.
- IDEA (Innovation and Digital Expression Activity) Lab.
  - A place for creation, collaboration, and promoting 21st century career readiness by exposing students to to the latest tools and technologies.
  - A fusion between a maker station and a design lab, featuring 10 high end computers that will offer software for graphic design, photo editing, architectural design, music production video editing and technology such as 3-D printers, multi touch collaboration platforms and design tablets.
  - Partnerships are being developed to offer targeted workshops, mentoring, internships and other educational opportunities.

- 350+ seat state-of-the-art Auditorium.
  - Acoustically balanced sound system for performances and lectures.
  - Listening loop for hearing impaired.
  - Robotic cameras accessed from the TV24 Media Studio to record and broadcast events throughout the Library, into City school classrooms, and online.

## Specialized adaptive technology

- I CAN! Center with dedicated services, programs, resources and expertise for people with disabilities.
  - Thirteen assistive technology work stations, audio books, closed circuit video magnifiers, Ubi-Duo visual communicator.
- ICAN! Too Center
  - Friendly, inclusive atmosphere, with technology, furniture, and resources geared to children with special learning needs. Includes *TAP\*it* learning stations, iPads and other tablets, text magnifying software, ADA-compliant furniture, adaptive toys, Braille and audio books and resources for parents.



#### Making Library operations more efficient and effective

- Public Computer Reservation System Computer management system that streamlines equitable access to computers for public and staff.
- Volunteer Scheduling Software Web-based scheduling software that streamlines scheduling of volunteers and allows for more efficient volunteer tracking and reporting.

- Use of iPhones and mobile devices for communication to compensate for operating with the same amount of staff in a building that is more than double in size.
  - Staff use of texting, iPhones, and tablets for communication between floors.
  - FaceTime used at several public services desks for library patrons to communicate with staff.



• One-of-a-kind window washing system designed specifically for the library and its unique windows.

## **Energy Efficiency**

- Energy efficient design and technological advances allow the City to pursue a LEED Silver status for this project, making the Central Library a model public building.
  - Energy efficient components, such as a system that turns off lights when there is sufficient natural light,
  - Well focused interior and exterior lighting and motion sensor lighting combined to reduce energy needs by approximately 15 percent.
  - Seven electric vehicle car charging stations in the Library's parking garage.



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